UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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MAR 2 5 2015

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First St. NE, Room 1A
Washington, D.C. 20426

Reference Docket No. CP13-193-000 and PF12-4-000

Dear Ms. Bose:

The U.S. Environmental Protection Agency (EPA) has reviewed the final environmental impact statement (FEIS) for the Aguirre Offshore GasPort Project (CEQ # 20150043) proposed in Aguirre, Puerto Rico. EPA's review of the FEIS is presented below, with detailed technical comments in the enclosure. This review was conducted in accordance with Section 309 of the Clean Air Act, as amended (42 U.S.C 7609, PL 91-604 12 (a), 84 Stat. 1709) and the National Environmental Policy Act (NEPA).

The purpose of the proposed project is to provide liquid natural gas (LNG) storage capacity and sustained deliverability of natural gas directly to the Puerto Rico Electric Power Authority's (PREPA) Aguirre Power Plant. This will allow conversion of the Aguirre Plant from using fuel oil only to a dual-fuel generation facility. The proposed project will include the construction and operation of an offshore marine LNG receiving terminal and a subsea pipeline connecting the offshore terminal to the Aguirre Power Complex. The offshore terminal, proposed to be located approximately one mile outside of Jobos Bay would semi-permanently moor a Floating Storage and Regasification Unit (FSRU) that would supply gas to the pipeline. Other LNG carriers would dock at the terminal, and transfer LNG to the FSRU for storage and regasification.

The FEIS has provided a new alternative not presented in the draft EIS, Alternative 6. As several environmental agencies have expressed concern over impacts on protected coral species along the subsea pipeline through the Boca del Infierno pass, FERC is recommending that Aguirre LLC conduct and file a detailed geotechnical analysis with its Implementation Plan, to assess the feasibility of using the horizontal directional drill (HDD) method to bore under the Boca del Infierno. Should the HDD method be shown not to be feasible, FERC has proposed Alternative 6, which uses the same terminal site as the proposed project, but modifies one of the pipeline routes (Alternative 1) to avoid coral reefs as much as possible on the south side of the cays surrounding Jobos Bay, then uses the barge channel over much of its length in Jobos Bay.

As stated in the September 26, 2014 comment letter on the draft EIS, the EPA recognizes the potential economic and environmental benefits of converting a portion of PREPA's electric generating capacity from oil to natural gas. The conversion from oil to natural gas that this project will allow will reduce air pollution, including greenhouse gas emissions, from the Aguirre Power Complex. In addition, the Aguirre plant is currently required to comply with the EPA's Mercury Air Toxics Standards rule by April 2016, based on a one year extension to these requirements granted by the Puerto Rico

Environmental Quality Board. This conversion to gas will facilitate compliance with MATS at the Aguirre Power Plant.

EPA concurs with FERC's recommendation to Aguirre LLC regarding the need to determine if HDD is feasible. However, EPA maintains that the environmental impacts of both the project as proposed with HDD through the Boca del Infierno and Alternative 6 with the existing terminal site can be reduced. Even using HDD, the proposed pipeline route would traverse Jobos Bay, a tropical estuary with five distinct habitat types (coral reefs, seagrass beds, mangrove forests, mud flats, and a littoral forest).

In addition, while less environmentally damaging than the alternative without HDD proposed in the DEIS, Alternative 6 still partially traverses an area of coral habitat outside the cays surrounding Jobos Bay. EPA recognizes that this alternative aligns the pipeline route to produce a less environmentally damaging route than Alternative 1, presented in the DEIS. As such, we question why a similar minor variation of repositioning Terminal Site 4 oceanward, was not considered. This would shorten the pipeline route and reduce the concomitant impacts while positioning the terminal away from Cayos de Pajaros.

While the impacts identified in the FEIS may be mitigated, EPA believes that placing the pipeline in the previously disturbed channel would be the least environmentally damaging alternative which is required by Section 404 of the Clean Water Act. In addition, based on the comments exchanged throughout the NEPA review process, EPA understands that fully evaluating a modified Terminal Site 4 with a channel pipeline route may address concerns expressed by regulatory and resource agencies and facilitate the remaining environmental review and permitting process for the project, thus avoiding longer term delays.

Thank you for the opportunity to comment. If you have any questions regarding this review or our comments, please contact me or John Filippelli, Director of the Clean Air and Sustainability Division at (212) 637-3736 or filippelli.john@epa.gov.

Sincerely,

Judith A. Enck

Judith A. Enck
Regional Administrator

Enclosure

EPA Technical Comments on the Federal Energy Regulatory Commission's Aguirre GasPort Project Final Environmental Impact Statement dated February 2015

Alternatives Analysis:

- EPA is concerned that the FERC has not presented the least environmentally damaging alternative, as necessary to obtain permits under the Clean Water Act Section 404(b) 1. Just as the FEIS adjusted Pipeline Route 1 into Alternative 6, so could the document have explored moving Terminal Site 4 oceanward. Using an adjusted Site 4 would certainly decrease the length of the pipeline to the Aguirre Facility, if HDD is not feasible.

- Alternative 6 would include a direct lay of the pipeline from MP 0.0 to MP 3.4, on the ocean side of Cayos de Barca, with coverage by concrete mats. While Alternative 6 reroutes the pipeline slightly inshore of the original Route 1 proposal to avert coral reefs detected in the alternative pass report, EPA is concerned that given the quality reef habitat existing in the near-shore areas this route adjustment may not adequately avoid valuable coral reef habitat being damaged by the concrete matting. Nor is it clear whether the estimates of impact to corals of the Alternate 6 route by direct lay of the pipeline on top of the coral also includes consideration of the concrete mats.

Resources Impacts:

- While the FEIS states that construction activities would result in direct impacts to approximately 22.6 acres of seagrass, 80.8 acres of macroalgal habitat and 6.2 acres of coral reef habitat (p. 4-44 and 4-54), FERC still states that impacts on vegetation resources would be minor and short term. EPA does not agree with this assessment given the large expanse of special aquatic sites which would be directly impacted. Seagrass, particularly, is fastidious and very sensitive to sedimentation. Seagrasses might not revegetate areas in the direct vicinity of the pipeline.

- The mitigation measures proposed by Aguirre LLC include the performance of pre-construction surveys, the identification of reference sites and seagrass relocation areas. This type of survey should have been completed as part of the development of the FEIS in order to properly and adequately assess the impacts from the project and the potential success of the proposed mitigation. The mitigation plans should have been at least conceptually completed, including the identification of transplant areas. We cannot ascertain that the impacts from the project will be adequately mitigated for without this information. Deferring the development of a final mitigation plan to the Corps of Engineers and resource agencies, as stated on p. 4-47, does not allow for the goal of the NEPA process to inform the public and agencies.

- Aguirre LLC proposes that post monitoring activities continue for three years for those portions of the mitigation that are deemed successful (monitoring for such portions would cease after three years). Two additional years of monitoring are proposed if the mitigation efforts are not successful. This position is not in accordance to standard practice with the monitoring requirements usually imposed by the Corps of Engineers for mitigation monitoring. The standard

is 5 years. Long term monitoring, even if the mitigation projects are successful short term, would be desirable due to the large impact area and the need to reestablish submerged aquatic vegetation.

- On page 4-57, the applicant states that corals would be transplanted using detached corals or other approved sources. If the applicant is considering transplanting corals from other areas, those areas should have been identified and approved previously in order to properly assess their adequacy for the purpose of this FEIS.

- It appears that the impact of shading on seagrasses at the offshore terminal was not included as part of this EIS, and will be addressed in the Benthic Resources Mitigation Plan to be finalized after the EIS process concludes (p. 4-58). Preferably, this should have been in the FEIS.

Greenhouse Gas Emissions:

EPA commends FERC for including estimates of greenhouse gas (GHG) emissions from the construction and operation of the proposed project. In the FEIS, FERC states that "there is no current methodology or policy guidance to determine how the Project's incremental contribution to GHGs would translate into physical effects on the global environment" (FEIS pg 4-226). However, as stated by CEQ's recently released "Revised Draft Guidance for Greenhouse Gas Emissions and Climate Change Impacts," estimated GHG emissions can serve as a reasonable proxy for climate change impacts when comparing the proposal and alternatives. In disclosing the potential impacts of the proposal and reasonable alternatives, consideration should be given to whether and to what extent the impacts may be exacerbated by expected climate change in the action area, as discussed in the "affected environment" section.

EPA also notes that the Final EIS continues to compare project related emissions to those associated with all of Puerto Rico. Recognizing that climate impacts are not attributable to any single action, but are exacerbated by a series of smaller decisions, we do not recommend comparing GHG emissions from a proposed action to aggregate emissions. As noted by the CEQ revised draft guidance, "[t]his approach does not reveal anything beyond the nature of the climate change challenge itself: [t]he fact that diverse individual sources of emissions each make relatively small additions to global atmospheric GHG concentrations that collectively have huge impact." Because comparisons to aggregated estimates of GHG emissions can trivialize even significant amounts, we recommend omitting these in future NEPA documents.

In future NEPA documents, EPA recommends including descriptions of measures to reduce GHG emissions associated with the proposed project, including reasonable alternatives or other practicable mitigation opportunities and disclose the estimated GHG reductions associated with such measures. For example, the project could employ energy efficient equipment such as small scale solar or employ anti-idling measures to reduce emissions. Alternatives analyses should, as appropriate, consider practicable changes to proposals to make them more resilient to anticipated climate change and sea level rise. EPA further recommends that FERC commit to implementation of reasonable mitigation measures that would reduce or eliminate project-related GHG emissions in the Record of Decision.

Air Quality:

It appears that FERC has misunderstood EPA's comments from EPA Region 2's September 24, 2014 letter to FERC on the applicability of 40 CFR Part 60, Subpart Db to the large boilers on the FSRU. These boilers are subject to Subpart Db. EPA requests that the following paragraph on Page 4-153 (see below) of the Final EIS be removed and replaced with the four paragraphs further below:

> *Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*
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> Subpart Db applies to steam generating units constructed, reconstructed, or modified after June 19, 1984 with a heat input capacity of greater than 100 MMBtu/hour. A "steam generating unit" is defined in this Subpart as a device that combusts any fuel and produces steam or heats water or heats any transfer medium. The boilers on visiting LNG carriers are not "stationary" and are not subject to this rule. The main boilers and auxiliary boiler on the FSRU would have a heat input capacity of at least 100 MMBtu/hour; however, when each boiler was constructed, it met the definition of a "temporary boiler" (" ...designed to, and ...capable of being carried or moved from one location to another..."), which is not subject to Subpart Db (per 40 CFR 60.40b(m)). Since NSPS applies to stationary sources at the time of construction, reconstruction, or modification, and anchoring or docking the marine vessel on which the boilers are installed does not constitute an act of construction, reconstruction, or modification, the NSPS in Subpart Db do not apply to the boilers on the FSRU.

The following paragraphs from Page 3-7 from the November 4, 2013 submittal from Ilia Levitine (Excelerate) to FERC should replace the existing Subpart Db discussion on Page 4-153 of the February 20, 2015 FEIS.

> *Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*
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> Subpart Db applies to new or reconstructed boilers that are between 100 - 250 MMBtu/hr heat input, so-called Industrial-Commercial-Institutional (ICI boilers) and commenced construction after June 19, 1984. The boilers at the Aguirre power plant are utility size (>250 MMBtu/ hr) and are not being rebuilt or reconstructed. Therefore, Subpart Db does not apply to the Aguirre Boilers.
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> The boilers on visiting LNGCs are not "stationary" and are not subject to this rule. The main boilers and auxiliary boiler on the FSRU will have a heat input capacity of at least 100 MMBtu/hour, and will be considered stationary sources subject to Subpart Db while the FSRU is moored to the GasPort, as determined by EPA Region 2 in a letter dated April 11, 2013. Because the boilers commenced construction after July 9, 1997, they will be subject to the NOx emission limits specified under 40 CFR 60.44b(l), which are determined on a 30-day rolling average basis.

The main boilers are high heat release rate boilers, and will be subject to a NOx limit of 0.20 lb/MMBtu. The auxiliary boiler is either a high heat release rate boiler, subject to a NOx limit of 0.20 lb/MMBtu, or a low heat release rate boiler, subject to a NOx limit of 0.10 lb/MMBtu. Both the main boilers and auxiliary boiler will use SCR to achieve a NOx emission rate of 0.018 lb/MMBtu while burning gas. During oil firing, the main boilers will likely continue to use the SCR system and in any event will easily comply with the Subpart Db NOx limit which is based on a 30-day rolling average. With the exception of brief periods during burner lightings, oil firing in the main boilers is intended to be a rare event, occurring only during gas curtailment, or during emergencies or malfunctions.

Boilers that burn only natural gas or very low sulfur oil, defined as having less than 0.5 percent sulfur by weight, are exempt from the particulate, opacity and $S0_2$ reduction requirements in Subpart Db.